

Personal Project Diary

(Maintained by-

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Team- 2,

CS101 Group- 15, Slot- 6)

<u>Date</u>	<u>Work Done</u>	<u>Time spent</u>
7/10/14 (Tuesday)	<ul style="list-style-type: none">▪ The list of projects was made available on the CS101 website. Went through the project details at evening.▪ Got in touch with Dipayan and Lavesb. Team meeting was fixed at 10 pm after dinner.▪ I was interested in developing a game as it would be an enjoyable experience. Chess and Sudoku are the games I enjoy myself and so decide to suggest these two as project ideas during meeting.▪ During the meeting, Dipayan shared my enthusiasm towards Sudoku whereas Lavesb asked to choose between Sudoku and Minesweeper.▪ Decided to search contents regarding Sudoku and Minesweeper and finalize our topic in the next meeting (8/10/14 at 9.30 pm).	2 hrs (including meeting of 1 hr): [6.30- 7.30pm & 10-11 pm]
8/10/14 (Wednesday)	<ul style="list-style-type: none">▪ Started searching online contents regarding both Sudoku and Minesweeper after lunch.▪ Read about the rules of Minesweeper and interesting concepts about solving a Minesweeper game using matrices and algorithms.▪ Read about the popular solving techniques for Sudoku like Naïve Brute-force algorithms, Back-Tracking algorithm, Stochastic search method etc.▪ Back-tracking method seemed the most logical method.▪ Later that day during the meeting, finally Sudoku Solver was decided as our final project.	2.5 hrs (including meeting of 1 hr): [2.30- 4 pm & 9.30- 10.30pm]
10/10/14 (Friday)	<ul style="list-style-type: none">▪ Team meeting was held where the different techniques were discussed and we shared our views.▪ We all agreed that back tracking is the method that we should go for.▪ We decided upon the approach towards implementing the method in C++ environment.	2 hrs (team

	<ul style="list-style-type: none"> ▪ Came up with the idea to also build a Sudoku generator program which will enable the user to play a Sudoku game. ▪ Team leader Lavesch distributed work among us. I was given the following tasks to do: <ol style="list-style-type: none"> 1) Thinking the logic to solve a given unsolved Sudoku, checking web contents. 2) Coding the functions named locateAnEmptyPlace() and checkRow() (only after the proper algorithm of solution of the Sudoku is decided), 3) Checking the functions made by Dipayan and Lavesch. 4) Deciding the contents and start thinking about how to write the SRS report (to be done later). 	meeting): [9.30-11.30pm]
11/10/14 (Saturday)	<ul style="list-style-type: none"> ▪ Decided the logic of the 'locateAnEmptyPlace' and 'checkRow' function. Written the code of the two functions afterwards. 	1 hr. [10.30-11.30pm]
13/10/14 (Monday)	<ul style="list-style-type: none"> ▪ Checked the getGrid() & showGrid() functions written by Dipayan. ▪ Written the isSafeToPut() function. 	1 hr. [7.30-8.30pm]
15/10/14 (Wednesday)	<ul style="list-style-type: none"> ▪ Worked out the logic behind the solveSudoku() function. Written the codes for solveSudoku() function by assembling the getGrid(), showGrid(), locateAnEmptyPlace(), isSafeToPut(), checkRow(), checkColumn(), checkbox() function. ▪ But solveSudoku() function did not run like expected due to some unknown reasons. Could not fix the bug. 	3 hrs: [3-5pm & 6.30-7.30pm]
16/10/14 (Thursday)	<ul style="list-style-type: none"> ▪ Informed team mates about the problem with solveSudoku(). Discussed the problem but no solution came out. ▪ Discussed about our progress so far with T.A. 	1.5 hrs: [Lab hours]
17/10/14 (Friday)	<ul style="list-style-type: none"> ▪ Dipayan came up with a solution to the solveSudoku() function. We sat down to check the program by giving it different Sudoku to solve and it worked correctly. ▪ Algorithm of Sudoku generator was discussed later at the team meeting by Dipayan and Lavesch. Lavesch also proposed to have a 'hint' and 'check' option enabled for the user during gameplay. ▪ Graphics and interface for the game was demonstrated by Lavesch. 	2 hrs (including meeting): [1.30-2.30am & 9.30-10.30pm]
18/10/14 (Saturday)	<ul style="list-style-type: none"> ▪ Was given the task to prepare SRS document by team leader. Discussed with teammates and wrote SRS draft. ▪ Converted personal diary to soft copied version. ▪ Edited the soft copied version of group diary and project report. 	2.5 hrs: [6-8.30pm]
19/10/14 (Sunday)	<ul style="list-style-type: none"> ▪ Team meeting was held to verify all the documents before submission. 	2.5 hrs

30/10/14 (Thursday)	<ul style="list-style-type: none"> ▪ Could not attend today's lab due to illness. 	
20/11/14 (Thursday)	<ul style="list-style-type: none"> ▪ Project work was again started with end sem being over. Formal meeting was held today. ▪ Saw the rough Sudoku generator code written by Lavesb and Dipayan, which was not working properly. ▪ Dipayan and I took the responsibility to write the code for the function as Lavesb was busy doing graphics and writing other codes. 	2.5 hrs
21/10/14 (Friday)	<ul style="list-style-type: none"> ▪ The generator function but it is taking a lot of time to execute. Dipayan took the responsibility to solve the problem. ▪ The task of writing the functions 'check' and 'hint' was given to me by Lavesb. ▪ Wrote the two functions after the meeting and gave it to Lavesb who had to do merging. 	3.5 hrs
23/10/14	<ul style="list-style-type: none"> ▪ All the functions were written and merged. ▪ The comment lines were added. ▪ The game was checked and played several times. It is running well. 	1 hr
24/10/14	<ul style="list-style-type: none"> ▪ The SRS document was prepared by me. ▪ All the documents were checked and then submitted to Lavesb for final upload. 	2 hrs